

Abstract

MEMBRANE MODULE APPARATUS, PACKAGING BODY, LIQUID TREATMENT SYSTEM, STEAM STERILIZATION METHOD AND SYSTEM CONSTRUCTING METHOD

Provided is a membrane module apparatus capable of allowing an aseptic connection member to be applicable to a hollow fiber membrane module and avoiding the need for a user to perform a sterilization treatment.

A membrane module apparatus 1 comprises: a hollow fiber membrane module 10 to be filled with a liquid during steam sterilization; thermoplastic tubes 11, being aseptic connection members, for aseptically connecting the membrane module apparatus 1 to another duct; connecting tubes 12 for connecting liquid ports 20, 22 and 23 of the hollow fiber membrane module 1 respectively to the thermoplastic tubes 11; and closure members capable of pinching and closing the connecting tubes 12. The connecting tubes 12 have heat resistance to the steam sterilization. An expansion member 14 is connected to a liquid port 21 of the hollow fiber membrane module 10.

Fig. 1